

# Green Light:

What could the next generation of road user charging look like?

CENTRE  
FOR  
LONDON

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# Green Light:

What could the next generation of road user charging look like?

**17:30** | Opening speeches

**17:35** | Presentation

**17:45** | Panel discussion, Q&A

**18:45** | Networking

**19:00** | Close



**Welcome**

# Green Light:

What could the next generation of road user charging look like?

**Ben Rogers**

Director

Centre for London

Credit: Steve Cysewski

**#LDNGreenLight**



## Report findings

# Green Light:

What could the next generation of road user charging look like?

**Silviya Barrett**

Research Manager  
Centre for London

Credit: Steve Cysewski

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1

Current  
challenges

2

A new scheme  
for London

3

Impact

4

Implementation

1.

# Current challenges on London's roads and streets

# London's transport faces some challenges...

- 1. Congestion:** has been growing, due to population growth, reallocation of road space and recent increase in overall vehicle usage.
- 2. Air pollution:** remains consistently above legal limits, harming people's health and wellbeing.
- 3. Health:** Car dependency has led to increased inactivity and associated health impacts.
- 4. Public realm:** Cars' dominance of cars blights the public realm and deters people from enjoying socialising and active lifestyles.

# London's transport faces some challenges...

5. **Safety:** many are killed or seriously injured on London's roads.
6. **Unfair funding:** little of the driver taxation collected by government is spent on London's roads.
7. **Poor quality network:** under-funding has created a road maintenance backlog.
8. **Social inequity:** the negative impacts of vehicle usage harm the poorest and most vulnerable in society the most.

# Road user charging can help to overcome these challenges by:

- Managing the demand for limited road space
- Reducing overall motor vehicle usage
- Promoting the use of more efficient and sustainable transport, including public transport, walking and cycling

# But the current system has drawbacks...

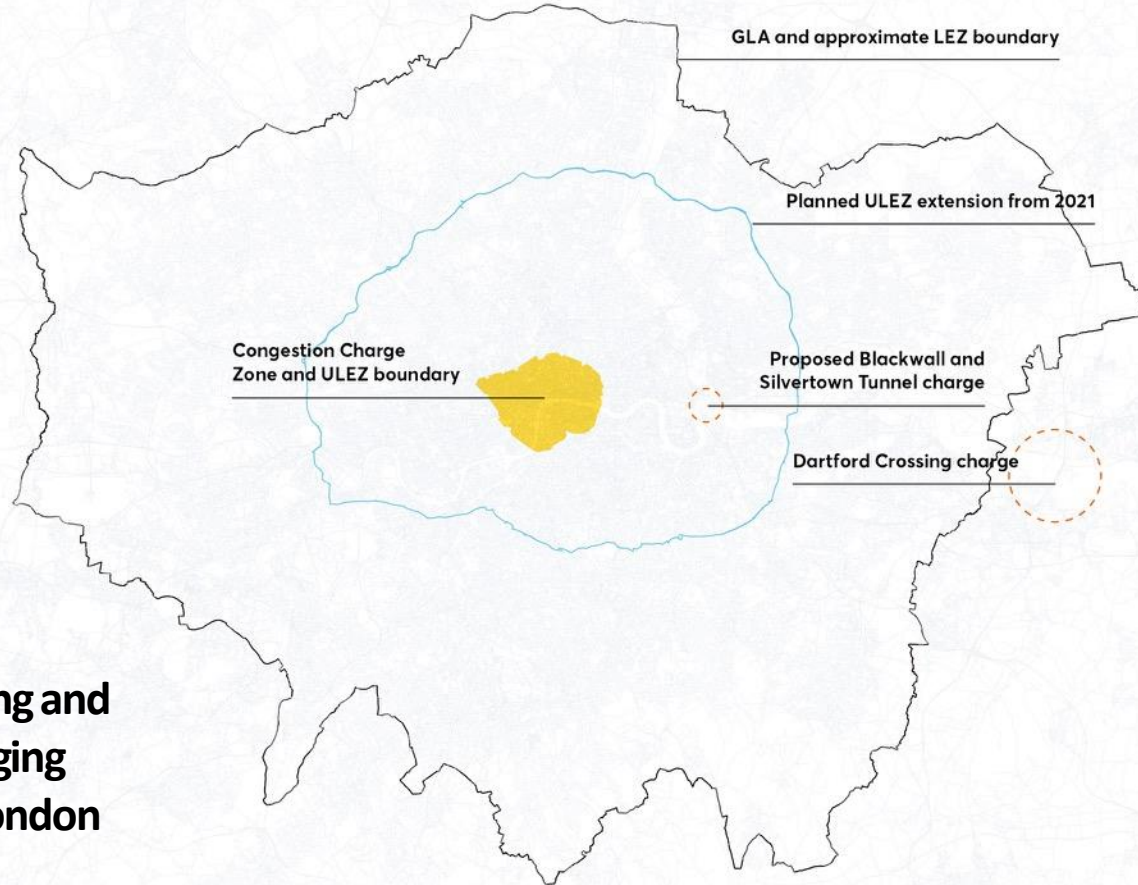
## 1. Congestion Charge

- World-leading when it launched and helped reduce private car traffic
- But traffic has grown outside of operating hours and by exempt vehicles

## 2. Ultra Low Emission Zone (ULEZ)

- Much needed to address air pollution
- But limited impact on some types of pollutants and – like the CC – is a flat daily charge, which costs the same regardless of how much and when one travels

# By 2025 we could have 5 separate schemes



Map of existing and planned charging schemes in London

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A black and white photograph of the interior of a vintage London Underground train carriage. The carriage is empty, showing rows of seats with a checkered pattern on both sides of a central aisle. The floor is made of metal grating. At the far end of the carriage, a door is visible with the number '468' and the word 'UNDERGROUND' written on it. Above the seats, there are overhead luggage racks and 'NO SMOKING' signs. The carriage has a classic, rounded design with large windows on the sides.

**London has always been a  
leader in transport innovation...**

Credit: Alexander Baxevenis

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## ...and we need similar vision for our roads

67%

of Londoners say that they have suffered symptoms from poor air quality.

Source: London Councils 2018, Air quality polling

60%

of Londoners agree that introducing a mileage or time-based charge in congested parts of London would be fairer (only 13% disagree).

Source: Populus 2016, Traffic congestion and road charging survey

**Changing public attitudes and new digital technology now provide an opportunity to create a modern, sophisticated charging system that can better address the city's needs.**

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2.

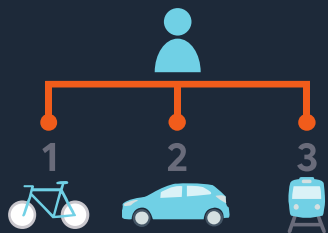
# A next generation scheme for London



### Design principle 1:

A distance-based scheme, with charges set in advance and varying according to:

- vehicle characteristics
- local congestion and pollution levels
- availability of alternative transport



### Design principle 2:

A single London transport platform, City Move, that:

- allows users to compare, plan and pay for journeys across the full range of modes
- proactively suggests cheaper, faster or healthier journey options
- offers a number of driver services



### Design principle 3:

#### Individual account

- enabling a fairer approach to charging, including targeted discounts
- options to split the charge between passengers
- can work for car hire, car clubs and ride hailing



### Design principle 4:

#### Charging levels

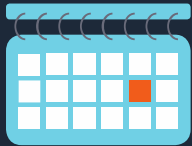
- set against objectives and reviewed regularly
- linked to existing public transport fare structure
- revenue spent on London's roads, public transport and associated measures



### Design principle 5:

#### Technology

- web platform and smartphone app for user registration, journey planning and payment
- in-vehicle device or app for journey verification
- roadside cameras for added enforcement



### Design principle 6:

A level of service guarantee, and potentially 'delay repay', offering a partial or full refund where a journey takes significantly longer than expected.



### Design principle 7:

#### A system of reward Mobility Credits for

- registering for an account
- choosing public transport, walking or cycling
- Giving up a car or scrapping an older vehicle



### Design principle 8:

#### Dedicated business account

- managing the whole fleet easily
- cheaper pre-booked off-peak delivery slots to encourage retiming and consolidation

3.

# Impact assessment

# The scheme would be better for consumers & the city as a whole

## Consumers

### Simpler

- Single easy-to-use scheme

### Smarter

- Compares options to enhance customer choice

### Fairer

- Reflects impact of individual journeys and allows for targeted discounts

## The city

### More efficient

- Promotes better use of road space and ensures roads are self-financing

### Healthier

- Increases safety and physical activity

### Greener

- Reduces emissions and air pollution and improves public realm

# The scheme could reduce demand and pollution significantly

Charging drivers on the most congested roads the equivalent of a cup of coffee could reduce CO2 emissions and air pollution by up to **20%**

## We modelled the impacts of the proposed scheme

- Charge graduated by vehicle emissions and geographic area
- Drivers on less congested roads not charged at all
- Charge for average 10-kilometre journey in the region of £1.50

## The impacts included

- Overall demand down by 10-15%
- CO2 emissions and air pollutants down by 15-20%
- Largest reduction from private vehicles and vans and in inner London

# 4. Implementation

# Implementation could be gradual...

The next Mayor  
should introduce a  
new approach to road  
user charging by the  
end of the  
**2020-2024**  
Mayoral term

## The scheme should

- operate at all times of day and night
- cover all motor vehicles with some exemptions
- replacing all existing and planned schemes

## Phasing could include

- Determine scheme parameters and develop platform
- Upgrade GPS accuracy and 5G network connectivity
- Pilot within the CCZ to test the technology
- Launch the platform across the whole of London
- Gradual extension of charging, starting with areas of high demand and pollution

# ...and government should support cities

A national vehicle taxation scheme can complement city schemes.

- Cities across England can introduce elements of the London scheme in the implementation of Clean Air Zones
- With vehicle taxation revenues declining, central government will eventually need to move to a national distance-based system
- Any national reforms should complement city schemes, with a national charge for the strategic road network replacing VED and Fuel Duty, while city schemes address local congestion and pollution
- Government should support London with funding on the same basis as other cities



# Panel discussion

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LONDON

Credit: Garry Smith

**Chair: Julian Glover,**  
Associate Editor, Evening Standard

**Anthony Alicastro,**  
Chief Executive Officer, emovis

**Silviya Barrett,**  
Research Manager, Centre for London

**Richard Dilks,**  
Programme Director of Transport,  
London First

**Shashi Verma,**  
Director of Strategy and Chief Technology Officer,  
Transport for London

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